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10/707,295	12/03/2003	Gang Qiu		1294

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 March 2008</u>.

2a)☐ This action is **FINAL**.　　2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>140</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-3,48-51,71-73,116-119,139 and 140</u> is/are rejected.

7)☒ Claim(s) <u>4-47,52-70,74-115 and 120-138</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>05 September 2007</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1. This communication is in response to Applicant's Amendment ("Amendment") to Office

Action dated December 12, 2007, filed March 6, 2008 and Applicant's RCE filed April 30, 2008.

1-1. Claims 1, 71, 139, and 140 have been amended. Claims 1-140 are pending.

1-2. Claims 1-140 have been examined.

Claim Objections

2. Most of the claims set forth a plurality of steps or elements. Each step or element of

those claims should be separated by a line indentation, 37 CFR 1.75(i). See MPEP § 608.01(m).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 48-51, 71-73, 116-119, and 139-140 are rejected under 35 U.S.C. 102(e) as

being anticipated by Chailleux, U.S. Patent Application Publication No. 2002/0109736 A1

published August 15, 2002.

4-1. Regarding claim 1, Chailleux discloses a method for modeling and simulating software running interactively directly or indirectly on at least one digital computer, comprising the steps of:

providing a display (display 3, paragraph [0048]);

providing an input, wherein said input connects at least one of a pointing device, a keyboard and external interactive devices to said software (User input devices, paragraph [0048]);

providing an output, wherein said output connects a block of memory to said display (Display Adapter 30, paragraph [0049]);

providing a software controller, wherein said software controller is a programmable agent controlling said software to perform tasks (executes the software application, paragraph [0061]);

providing a software modeling process, wherein said software modeling process models an interaction process between said software and said software controller (authoring program, paragraph [0046]), further comprising the sub-steps of:

(a) connecting said software controller with said software through an input and an output of said software, (b) controlling said software by said software controller automatically and programmatically (executes the software application, paragraph [0061]; another computer program automatically performs one or more of the authoring steps described herein, paragraph [0060]), and

(c) identifying a model of said software on-line, wherein said model of said software includes input and output behavior of said software under control of said software controller (Create Presentation Applet, Fig. 1); wherein said input behavior of said software

includes at least one control enabling structure; wherein said control enabling structure interacts

with said software controller (authoring steps, paragraph [0060]); wherein said output behavior

of said software includes at least one display screen region (screenshots are captured, paragraph

[0061]); and

   providing a software simulation process, wherein said software simulation process

simulates said interaction process between said software and said software controller (playback

of the presentation, paragraph [0047]), further comprising the sub-steps of:

      (d) connecting said software controller with said model of said software through a

simulated input and a simulated output of said model of said software, (e) controlling said model

of said software by said software controller automatically and programmatically (Sequence

controls … are provided, paragraph [0047]; software of the present invention, may be presented

as a single entity, paragraph [0058]), and

      (f) simulating said interaction process between said software and said software

controller without said software presence (playback of the presentation, paragraph [0047]); and

   wherein said software simulation process is a new software that comprises said model of

said software and said software controller (Java applet, paragraph [0046]).

4-2.   Regarding claim 2, Chailleux further discloses comprising the step of:

   providing a discrete sampling domain, wherein said discrete sampling domain is a finite

integer sequence K driven by said software controller (automate the process, paragraph [0060])

with a current sampling k indicating the most recent sampling (the number of screenshots

currently taken can be determined, paragraph [0069]).

4-3.   Regarding claim 3, Chailleux further discloses comprising the steps of:

providing a software dynamic system to represent said software modeling process,

wherein said software dynamic system is a discrete system defined over said discrete sampling

domain K (another computer program automatically performs one or more of the authoring steps,

paragraph [0060]);

wherein said software simulation process simulates said software dynamic system

(playback of the presentation, paragraph [0047]).

4-4.   Regarding claim 48, Chailleux further discloses wherein said software modeling process

is a software modeling automation that runs autonomously (another computer program

automatically performs one or more of the authoring steps, paragraph [0060]).

4-5.   Regarding claim 49, Chailleux further discloses wherein said software simulation process

is a software simulation automation that runs autonomously, wherein the method further

comprises the step:

providing an output of said software simulation automation, wherein said output of said

software simulation automation is said output of said model of said software that is manipulable

(playback of the presentation, paragraph [0047]).

4-6.   Regarding claim 50, Chailleux further discloses wherein said software simulation

automation is augmented with additional computation while said software dynamic system is

preserved (the advertising banner can be initialized, updated, or replaced, paragraph [0100]).

4-7.   Regarding claim 51, Chailleux further discloses wherein the step of augmenting said

software simulation automation further comprises the steps of:

providing an interaction input component H, wherein said interaction input component H

engages a user to interact with said software simulation automation (Editing and checking of the

cursor shape and movement can be performed, paragraph [0078]);

providing an index component G, wherein said index component G controls visibility of

said output of said software simulation automation (slide number, paragraph [0076]);

providing a programmable extension component E, wherein said programmable

extension component E extends programmatically said software simulation automation

(automate the process, paragraph [0060]) with additional computational process (the advertising

banner can be initialized, updated, or replaced, paragraph [0100]).

4-8.   Regarding claims 71-73 and 116-119, these system claims include the equivalent method

limitations as in claims 1-3 and 48-51 and are anticipated using the same analysis of claims 1-3

and 48-51.

4-9.   Regarding claim 139, Chailleux discloses a method for modeling and simulating software

running interactively directly or indirectly on at least one digital computer, comprising the steps

of:

providing a first software, wherein said first software is a binary software that is runnable

in the form of EXE or Dynamic Link Libraries (DLL) (the software application, paragraph

[0061]);

providing a second software, wherein said second software is programmed to synthesize

at least one of a plurality input actions, wherein said plurality of input actions comprise, at least

one pointing device action, at least one keyboard action, and/or at least one external input action

(Authoring Program, Add text, cursor movement and transitions, clickable areas, Fig. 1);

executing said first software under control of said second software automatically and

programmatically by applying said synthesized input actions to said first software by said second

software (Authoring Program, Execute Application Program to Obtain Screenshots, Fig. 1;

another computer program automatically performs one or more of the authoring steps described

herein, paragraph [0060]);

identifying a model of said first software, wherein said model of said first software

includes input and output behavior of said first software under control of said second software

(Authoring Program, Create Presentation Applet, Fig. 1); wherein said input behavior of said

first software includes at least one control enabling structure; wherein said control enabling

structure interacts with said second software (authoring steps, paragraph [0060]); wherein said

output behavior of said first software includes at least one display screen region (screenshots are

captured, paragraph [0061]);

controlling said model of said first software by said second software automatically and

programmatically to simulate said input and output behavior of said first software under control

of said second software (controls are shown to allow the author to direct how the applet is played

back in a browser, paragraph [0096]);

creating a third software, wherein said third software comprises said model of said first

software and said second software (the applet is built, paragraph [0097]; software of the present

invention, may be presented as a single entity, paragraph [0058]).

4-10. Regarding claim 140, the system claim includes the equivalent method limitations as in

claim 139 and is anticipated using the same analysis of claim 139.

Allowable Subject Matter

5.   Claims 4-47, 52-70, 74-115, and 120-138 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's Arguments

6.   Applicant argues the following:

(1) "Based on the purpose and target of the interactions, and its intended end users, software interaction and authoring interaction are two distinctly different interactions. Chailleux might suggest to automate the authoring interaction, the interaction between the author and the authoring program by a computer program, but Chailleux does not teach nor suggest to automate the software interaction, the interaction between the author and the software by a computer program. However, automating the software interaction by a computer program without the author operating the software, is one of inventive mechanisms disclosed and claimed in this application." (page 44, paragraph 4, Amendment)

(2) "the applicant discloses, at paragraph [26], "the present invention models the interactive software S running on digital computers as a physical device with causality. It develops the process of interaction between the software and its human user in a plant-controller servo-mechanism similar to the processes that system science and engineering apply to physical processes. A software controller is developed to model user intelligence." (page 45, paragraph 1, Amendment)

(3) "applicant discloses, at paragraph [29], "The software S is connected with the agent A in a closed-loop fashion as a software dynamic system, …." (page 45, paragraph 2, Amendment)

(4) "applicant discloses, at paragraph [30], "The modeled software is connected with the same agent A again in the same closed-loop fashion as a simulated software dynamic system, …." (page 45, paragraph 3 through page 46, paragraph 1, Amendment)

Response to Arguments

7.   Applicant's arguments have been fully considered.

7-1.   Applicant's argument (1) is not persuasive. Chailleux discloses at paragraph [0060], "Other embodiments may automate the process where, for example, another computer program automatically performs one or more of the authoring steps described herein" and at paragraph [0061], "screenshots are captured during the application's execution when the author depress a keyboard key, such as the "pause" key". In other words, Chailleux does disclose automating authoring steps including at least "depressing a keyboard key", regardless it is an argued "software interaction" or "authoring interaction". The details of the argued "software interaction (i.e., the interaction between the author and the software)" have not been explicitly claimed. Therefore, for a simple software (e.g., only using a keyboard key to open a window instead of using the mouse), Chailleux's automating authoring steps does anticipate the argued "automating the software interaction by a computer program without the author operating the software".

7-2.   Applicant's arguments (2) - (4) are not persuasive. In response to Applicant's argument that the references fail to show certain features of Applicant's invention, it is noted that the features upon which Applicant relies (i.e., "develops the process of interaction between the

software and its human user in a plant-controller servo-mechanism", and "in a closed-loop

fashion") are not recited in the rejected claims. Although the claims are interpreted in light of

the specification, limitations from the specification are not read into the claims. See *In re Van*

Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). For example, claim 1 recites,

"providing a software controller, wherein said software controller is a programmable agent

controlling said software to perform tasks". However, "in a plant-controller servo-mechanism"

and "in a closed-loop fashion" have not been claimed in claim 1. Therefore, arguing unclaimed

features is not persuasive.

Conclusion

8.   Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Herng-der Day whose telephone number is (571) 272-3777. The

Examiner can normally be reached on 9:00 - 17:30.

Any inquiry of a general nature or relating to the status of this application should be

directed to the TC 2100 Group receptionist: (571) 272-2100.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

supervisor, Kamini S. Shah can be reached on (571) 272-2279. The fax phone numbers for the

organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kamini S Shah/

Supervisory Patent Examiner, Art Unit 2128

/Herng-der Day/
Examiner, Art Unit 2128

May 27, 2008